

**REMARKS**

The Official Action mailed June 30, 2009, has been received and its contents carefully noted. This response is filed within three months of the mailing date of the Official Action and therefore is believed to be timely without extension of time. Accordingly, the Applicant respectfully submits that this response is being timely filed.

The Applicant notes with appreciation the consideration of the Information Disclosure Statement filed on July 6, 2006.

Claims 1-48 were pending in the present application prior to the above amendment. Claims 1-9, 14-24, 27, 28 and 39-48 have been canceled without prejudice or disclaimer. Accordingly, claims 10-13, 25, 26 and 29-38 are pending in the present application, of which claims 10 and 12 are independent. Claims 10 and 12 have been amended to better recite the features of the present invention. For the reasons set forth in detail below, all claims are believed to be in condition for allowance. Favorable reconsideration is requested.

Paragraph 4 of the Official Action rejects claims 1-48 as anticipated by U.S. Publication No. 2006/0020136 to Hwang. Paragraph 13 of the Official Action rejects claims 1-3, 5, 6, 10, 11, 20, 21, 23, 24, 29, 30, 32 and 33 as anticipated by U.S. Publication No. 2004/0151944 to Onikubo. Paragraph 17 of the Official Action rejects claims 1-6, 10, 11 and 14-18 as anticipated by U.S. Patent No. 5,756,248 to Tanaka. Paragraph 24 of the Official Action rejects claims 1, 2, 4, 5, 7, 9, 12, 13, 20, 21, 23, 24, 27, 28, 34, 35, 37 and 38 as anticipated by Thomas et al., "Light-Emitting Carbazole Derivatives: Potential Electroluminescent Materials," Journal of the American Chemical Society, Vol. 123, No. 38, pp. 9404-9411. Paragraph 28 of the Official Action rejects claims 1, 3, 5, 6, 10, 11, 16 and 17 as anticipated by Balionyte et al., "Potential hole-transport materials prepared by Ullmann coupling," Environmental and Chemical Physics, 2002, Vol. 24, No. 1, pp. 30-34. With respect to claims 1-9, 14-24, 27, 28 and 39-48, these claims have been canceled without prejudice or disclaimer; therefore, the above-referenced rejections are now moot. With respect to claims 10 and 12, the



Applicant respectfully submits that an anticipation rejection cannot be maintained against the independent claims of the present application, as amended.

As stated in MPEP § 2131, to establish an anticipation rejection, each and every element as set forth in the claim must be described either expressly or inherently in a single prior art reference. Verdegaal Bros. v. Union Oil Co. of California, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987).

Independent claim 10 has been amended to recite that R<sup>21</sup> and R<sup>24</sup> represent biphenyl, and independent claim 12 has been amended to recite that R<sup>21</sup> represents biphenyl. These features are supported in the present specification, for example, by structural formulae 70 and 71. Comparing Examples 1 and 6, the glass transition temperature (T<sub>g</sub>) of 3-{N-[9-(4-biphenyl)carbazole-3-yl]-N-phenylamino}-9-(4-biphenyl)carbazole (BCzBCA1, structural formula 70) is 137°C, which is higher than the T<sub>g</sub> of 3-[N-(9-phenylcarbazole-3-yl)-N-phenyl amino]-9-phenylcarbazole (PCzPCA1, structural formula 12), which is 112°C (paragraphs [0205] and [0242] of the pre-grant publication of the present application), which shows that a biphenyl group in R<sup>21</sup> and R<sup>24</sup> contributes to thermal stability. The Applicant respectfully submits that Hwang, Onikubo, Tanaka, Thomas or Balionyte does not teach the above-referenced features of the present invention, either explicitly or inherently.

Since Hwang, Onikubo, Tanaka, Thomas or Balionyte does not teach all the elements of the independent claims, either explicitly or inherently, an anticipation rejection cannot be maintained. Accordingly, reconsideration and withdrawal of the rejections under 35 U.S.C. § 102 are in order and respectfully requested.

Paragraph 32 of the Official Action rejects claims 3, 8, 19, 25, 26, 44, 45, 47 and 48 as obvious based on Thomas. Paragraph 52 of the Official Action rejects claims 18, 39, 40, 42 and 43 as obvious based on the combination of Onikubo and Thomas. Paragraph 60 of the Official Action rejects claims 22, 31 and 41 as obvious based on the combination of Onikubo, Thomas and U.S. Publication No. 2001/0046612 to Lee. Paragraph 66 of the Official Action rejects claims 22, 36 and 46 as obvious based on



the combination of Onikubo, Thomas and Lee. With respect to claims 1-9, 14-24, 27, 28 and 39-48, these claims have been canceled without prejudice or disclaimer; therefore, the above-referenced rejections are now moot. With respect to claims 10 and 12, the Applicant respectfully submits that a *prima facie* case of obviousness cannot be maintained against the independent claims of the present application, as amended.

As stated in MPEP §§ 2142-2144.04, to establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some reason, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. Obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some reason to do so found either explicitly or implicitly in the references themselves or in the knowledge generally available to one of ordinary skill in the art. "The test for an implicit showing is what the combined teachings, knowledge of one of ordinary skill in the art, and the nature of the problem to be solved as a whole would have suggested to those of ordinary skill in the art." In re Kotzab, 217 F.3d 1365, 1370, 55 USPQ2d 1313, 1317 (Fed. Cir. 2000). See also In re Fine, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988); In re Jones, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992).

The prior art, either alone or in combination, does not teach or suggest all the features of the independent claims, as amended. As noted above, independent claim 10 has been amended to recite that R<sup>21</sup> and R<sup>24</sup> represent biphenyl, and independent claim 12 has been amended to recite that R<sup>21</sup> represents biphenyl. The Applicant respectfully submits that Onikubo, Thomas and Lee, either alone or in combination, do not teach or suggest the above-referenced features of the present invention.

Since Onikubo, Thomas and Lee do not teach or suggest all the claim limitations, a *prima facie* case of obviousness cannot be maintained. Accordingly, reconsideration



and withdrawal of the rejections under 35 U.S.C. § 103(a) are in order and respectfully requested.

Should the Examiner believe that anything further would be desirable to place this application in better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number listed below.

The Commissioner is hereby authorized to charge fees under 37 C.F.R. §§ 1.16, 1.17, 1.20(a), 1.20(b), 1.20(c), and 1.20(d) (except the Issue Fee) which may be required now or hereafter, or credit any overpayment to Deposit Account No. 50-2280.

Respectfully submitted,



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